



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,707	09/06/2006	Kenichi Miyoshi	L9289.06186	3145
52989 7590 02/26/2008 STEVENS, DAVIS, MILLER & MOSHER, LLP 1615 L. STREET N.W. SUITE 850 WASHINGTON, DC 20036			EXAMINER NGUYEN, HAI V	
			ART UNIT 2618	PAPER NUMBER
			MAIL DATE 02/26/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/591,707

Applicant(s)

MIYOSHI, KENICHI

Examiner

Hai V. Nguyen

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>09/06/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the application filed on 06 September 2006.
2. Claims 1-9 are presented for examination.

Information Disclosure Statement

3. The information disclosure statement filed on 09/06/2006 regarding to the documents 2003/234717, 2001/ 0762278, 2001/148702, 2000/165937, 07221696 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the elements of *"reports the delay to the second communication terminal"*, *"when the second communication terminal receives the report of the relay from the first communication terminal, the second communication terminal reports the relay to a user of the second communication terminal"* in claim 8 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

Art Unit: 2618

prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by **Tong et al. US 2004/0114618 A1**.

7. As to claim 1, Tong discloses a communication terminal apparatus (*Fig. 1, elements 16*) that relays communication between a base station (*Fig. 1, element 14*) and another communication terminal (*Fig. 1, element 16*) in a communication system of

Art Unit: 2618

an OFDM (Orthogonal Frequency Division Multiplex) scheme (*Abstract, OFDM*), said communication terminal apparatus comprising:

a storage section that stores communication data between the base station and the another communication terminal (*Fig. 6, a block of OFDM sub-carriers in the time-frequency domain is allocated to a single mobile 16 at any given time, [0040]*); and a transmission section (*Fig. 6, element 16*) that frequency division multiplexes the stored communication data with data of the communication terminal apparatus and transmits the frequency division multiplexed data (*Fig. 12, element 308, the joint, STTD coded data*) at a timing (*a synchronized time slot, [0053]-[0057]*) for transmitting the data of the communication terminal apparatus (*Fig. 6, element 16, [0040], [0043]; the data transmitted from any given mobile terminal 16 to a base station 14 may include data corresponding to the mobile terminal 16 transmitting data or data received from another mobile terminal 16, [0052]*).

8. As to claim 2, Tong discloses, wherein said transmission section maps the stored communication data to an available sub-carrier to which the data of the communication terminal apparatus is not mapped among sub-carriers that the communication terminal apparatus can use, and performs the frequency division multiplexing (*Fig. 8, utilizing the pilot data signals P1, P2 for sub-carriers, [0046]-[0047]*).

9. As to claim 3, Tong discloses a reporting section that reports to the base station that requests to relay the communication data or the another communication terminal that said transmission section transmits communication data between the base station and the another communication terminal (*Fig. 12, block 308*).

10. As to claim 4, Tong discloses a communication terminal apparatus (*Fig. 1, element 16*) that communicates with a base station (*Fig. 1, element 14*) via a relay of another communication terminal (*Fig. 1, another element 16 also having relaying function and time slots*) in a communication system of an OFDM-TDD (Orthogonal Frequency Division Multiplex - Time Division Duplex) scheme, wherein said communication terminal apparatus performs reception processing at a timing (*a synchronized time slot, [0053]-[0057]*) for uplink communication for the communication system (*Fig. 15, [0060]*).

11. As to claim 5, Tong discloses, wherein said communication system is a communication system of an OFDM-FDD (Orthogonal Frequency Division Multiplex - Frequency Division Duplex), further comprising a reception system that performs reception processing in uplink frequency, wherein said communication terminal apparatus transmits the stored data to the another communication terminal in uplink frequency (*Fig. 15, [0060]*).

12. As to claim 6, Tong discloses a communication terminal apparatus (*Fig. 13A, element 16*) that communicates with a base station via a relay of another communication terminal in a communication system of an OFDM-FDD (Orthogonal Frequency Division Multiplex - Frequency Division Duplex) scheme (*Fig. 13A, frequencies F1, F2 are reserved for communication between the base station 14 and the mobile terminals 16 and separate relay frequency resource F3 is used to facilitate communications between mobile terminals 16, [0057]*), said communication terminal apparatus comprising a reception system (*Fig. 13A, element 16 having uplink F1,*

Art Unit: 2618

downlink F2) that performs reception processing in uplink frequency, wherein said communication terminal apparatus transmits data of the communication terminal apparatus to the another communication terminal in uplink frequency (Fig. 15, the separate relay frequency F3 to facilitate communications between mobile terminals 16, [0057]-[0060]).

13. Claim 7 corresponds to the method claim of claim 1; therefore, it is rejected under the same rationale as in claim 1.

14. As to claim 8, Tong discloses a communication system that is a communication system of an OFDM scheme comprising a base station (*Fig. 1, element 14*) and a plurality of communication terminals (*Fig. 1, elements 16*), wherein:

when a first communication terminal (*Fig. 1, a mobile terminal element 16*) is requested to relay communication with the base station from a second communication terminal (*Fig. 1, another mobile terminal element 16*), the first communication terminal temporarily stores relay data and frequency division multiplexes the relay data with data of the first communication terminal, transmits the frequency division multiplexed data (*Fig. 12, element 308, the joint, STTD coded data*) at a timing (*a synchronized time slot, [0053]-[0057]*) for transmitting the data of the first communication terminal, and reports the relay to the second communication terminal (*Fig. 6, element 16, [0040], [0043]; the data transmitted from any given mobile terminal 16 to a base station 14 may include data corresponding to the mobile terminal 16 transmitting data or data received from another mobile terminal 16, [0052]*); and

when the second communication terminal receives the report of the relay from the first

Art Unit: 2618

communication terminal, the second communication terminal reports the relay to a user of the second communication terminal (*Fig. 15, the mobile terminals 16 may relay the information to each other [0060]-[0062]*).

15. As to claim 9, Tong discloses a communication apparatus (*Fig. 1, a mobile terminal element 16*) that relays communication between a first communication apparatus (*Fig. 1, a base station element 14*) and a second communication apparatus (*Fig. 1, another mobile terminal element 16*) in a communication system of an OFDM scheme (*Figs. 6, 7*), said communication apparatus comprising: a storage section that stores communication data between the first communication apparatus and the second communication apparatus (*Fig. 6, a block of OFDM sub-carriers in the time-frequency domain is allocated to a single mobile 16 at any given time, [0040]*); and a transmission section that frequency division multiplexes the stored communication data with data of the communication apparatus and transmits the multiplexed data (*Fig. 12, element 308, the joint, STTD coded data*) at a timing (*a synchronized time slot, [0053]-[0057]*) for transmitting the data of the communication apparatus.

16. Further references of interest are cited on Form PTO-892, which is an attachment to this action.

Art Unit: 2618

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai V. Nguyen whose telephone number is 571-272-3901. The examiner can normally be reached on 6:00-3:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hai V. Nguyen
Examiner
Art Unit 2618

HN


MATTHEW ANDERSON
SUPERVISORY PATENT EXAMINER